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EXAMINER

KEEFER, MICHAEL E

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



### DETAILED ACTION

1. This Office Action is responsive to the Amendment filed 2/4/2008. Claims 1, 3-4, and 6-20 are pending. Claims 2, 5, and 21-24 are cancelled.

#### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 14-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia as applied to claims 1-2 above, and further in view of Ahmed et al. (EP 1137224), hereafter Ahmed.

4. Claims 1, 16, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Garcia-Luna-Aceves et al. (US 683865), hereafter Garcia.

Regarding **claims 1 and 16** Garcia discloses:

A method for establishing a communication link from a first processing unit located in a first network to a second processing unit located in a second network, through a wireless network comprising a plurality of nodes, said method comprising: (Fig. 1, Gateways are IR16d 16e, IR16A and IR16B, processing units are 22A-C, plus devices in internet 14 and subnet 12C)

in a first gateway, selecting one of a plurality of dynamic routes between the nodes to access a second gateway, the first gateway adapted for accessing the wireless network and said first processing unit, the second gateway adapted for accessing the wireless network and said second processing unit; and

establishing a tunnel between the first gateway and the second gateway using the selected route to thereby establish said communication link. (Col. 11, lines 1-25 disclose finding a plurality of routes to a destination (the broadcast search can return multiple routes), which the gateway which broadcast the search request can then use to directly route packets through the wireless network to its destination, i.e. a tunnel.)

Generating the dynamic routes using each of said plurality of nodes (since the search described in Col. 11 lines 1-25 will replicate searches throughout the entire network, all nodes are considered for dynamic routing.)

Garcia does not specifically disclose detecting a neighboring node, collecting data identifying the detected node, and transmitting the data.

Regarding **claim 3 as applied to claims 1-2**, Garcia discloses:

Broadcasting a request for route generation. (the router broadcasts the search request to all adjacent nodes.)

Regarding **claim 6**, Garcia discloses:

Performing a broadcast from the gateway wherein the generating is performed in response to the broadcast. (Col. 11, the router broadcasts the search request to all adjacent nodes, which reply with path data.)

Regarding **claims 9-10**, Garcia discloses:

Identifying paths based upon criteria, including bandwidth, reliability, or node cost. (Garcia discloses using the protocols in 09/418,700, now US 6836463, of which Col. 8 describes the information that nodes keep about

themselves and other nodes, which includes types of service and the cost of using the nodes.)

Regarding **claim 11 as applied to claim 1**, Garcia discloses:

That the choice of path is determined based upon a criteria (Col. 10 lines 53-63 discloses that multiple routing entries for the same destination are provided, multiple entries may be provided for different types (classes) of service.)

Regarding **claim 12 as applied to claims 1 and 11**, Garcia discloses:

That the choice of path is determined based upon bandwidth, reliability and cost of using each node. (Col. 10 lines 53-63 discloses that multiple routing entries for the same destination are provided, multiple entries may be provided for different types (classes) of service, which may require certain bandwidth or cost metrics.)

Regarding **claims 14 and 15 as applied to claim 1**, Garcia discloses:

The first network comprises the internet (a WAN). (See Fig. 1, the internet)

Regarding **claim 17 as applied to claim 16**, Garcia discloses:

The wireless module comprises a point to point wireless communication module. (Col. 9 lines 43-52 discloses that the IRs are wireless communication devices.)

Regarding **claim 19, as applied to claim 16**, Garcia discloses:

A memory storing dynamically established routes between wireless nodes. (Col 10 lines 28-67 through Col 11 line 25) describe a variety of ways for the wireless nodes to store route information in memory)

Garcia discloses all the limitations of claims 1, 3-4, and 6-12, and 14-17 except for:

Updating the dynamic routes randomly in time (claims 4 and 7), the route generating protocol of claims 1, 6, and 8.

Ahmed teaches a routing protocol for use in mobile ad-hoc networks, which causes nodes to transmit information about themselves and their nearest neighbors to adjacent nodes. ([0031], note that both the link list (i.e. the nearest K neighbors) and information about each node is transmitted through the network.

Ahmed also teaches an route update method based off of a random (t1 and t2) period of time in [0034].

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Garcia with Ahmed in order to reduce the size of routing tables by including fewer entries.

5. **Claims 13 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia and Ahmed as applied to claims 1 and 16 above, and further in view of Tuomenoksa et al. (US 2002/0023210), hereafter Tuomenoksa.

Garcia and Ahmed teach all of the limitations of claims 13 and 18 except for creating an encrypted tunnel between the gateways.

The general concept of creating encrypted tunnels between gateways is well known in the art as taught by Tuomenoksa. ([0186] teaches creating an encrypted tunnel between two gateways)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Garcia and Ahmed with the general concept of creating encrypted tunnels between gateways as taught by Tuomenoksa in order to increase security.

6. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia and Ahmed as applied to claim 16 above, and further in view of Official Notice.

Garcia does not explicitly teach that LAN 20, the link between router 18 and Internet 14, or LAN 26 are Ethernet links.

The Examiner takes Official notice that the general concept of using Ethernet as a LAN protocol or as a link into the Internet is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Garcia and Ahmed with the the general concept that Ethernet is a well-known LAN and Internet layer 1 protocol in order to make the network more standardized.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1 and 16 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments regarding the rejection of claims under 35 U.S.C. 102(e) are moot as those rejections have been withdrawn in view of Applicant's amendment.

Regarding Applicant's arguments about the obviousness of claim 1 in view of Garcia:

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8. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., what network layer the system/method is operating at, not requiring knowledge of all nodes on the network, etc.) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). (The Examiner notes that Applicant has only argued that the claims are not obvious in view of Garcia alone, not in view of the combination of Garcia and Ahmed.)

### **Conclusion**

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the



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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL E. KEEFER whose telephone number is (571)270-1591. The examiner can normally be reached on Monday through Friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2154